

## **Desensitizing control of the wave equation and related questions**

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Desensitizing control questions were introduced by J.-L. Lions. They lead to controllability issues for systems of coupled equations. We shall consider this setting in the case of the wave equation and provide a precise control time for such systems in connection with the underlying high-frequency geometry. This is joint work with B. Dehman (Faculté des Sciences de Tunis) and M. Léautaud (Université Paris-Diderot). In this presentation we will focus on the link between the micro-scale and the meso-scale for ferromagnetic models.

The micro-scale designates a model where atom kernels are assimilated to point-wise magnetic charges and the meso-scale is the model of micromagnetism. Starting from the micro-scale description, we will give a stochastic description of heat effects. In the following, we will expose the link between the micro and meso-scale.